



>>Entry Name: **1,1,2,2-Ethanetetracarboxylic acid**, 9CI, 8CI

Synonym(s): Bimalonic acid

CAS Registry Number: 4378-76-1

(HOOC)₂CHCH(COOH)₂

Molecular Formula: C₆H₆O₈

Molecular Weight: 206.109

Accurate Mass: 206.00627

Percentage Composition: C 34.97%; H 2.93%; O 62.10%

Use/Importance: Used in the manuf. of adhesives

Physical Description: Needles or plates (Et₂O)

Melting Point: Mp 167-169° (dec.)

Solubility: Sol. H₂O, EtOH, Et₂O; spar. sol. AcOH, C₆H₆

>>Derivative: *sym*-Di-Me ester

CAS Registry Number: 143590-54-9

Molecular Formula: C₈H₁₀O₈

Molecular Weight: 234.162

Accurate Mass: 234.03757

Percentage Composition: C 41.03%; H 4.30%; O 54.66%

Physical Description: Cryst.

Melting Point: Mp 158-160°

>>Derivative: Tetra-Me ester

Synonym(s): Dimethyl bimalonate. Bimalonic ester

CAS Registry Number: 5464-22-2

Molecular Formula: C₁₀H₁₄O₈

Molecular Weight: 262.216

Accurate Mass: 262.06887

Percentage Composition: C 45.81%; H 5.38%; O 48.81%

Physical Description: Cryst. (Et₂O)

Melting Point: Mp 138°

Solubility: Spar. sol. Et₂O; insol. petrol

>>Derivative: Tetra-Et ester

Synonym(s): Diethyl bimalonate

CAS Registry Number: 632-56-4

Molecular Formula: C₁₄H₂₂O₈

Molecular Weight: 318.323

Accurate Mass: 318.13147

Percentage Composition: C 52.82%; H 6.97%; O 40.21%

Melting Point: Mp 75-77°

Aldrich: 13188-1

Fluka: 2440

>>Derivative: Anhydride

Synonym(s): Dihydro-1*H*,3*H*-furo[3,4-*c*]furan-1,3,4,6-tetrone, 9CI

CAS Registry Number: 17976-58-8

Molecular Formula: C₆H₂O₆

Molecular Weight: 170.078

Accurate Mass: 169.98514

Percentage Composition: C 42.37%; H 1.19%; O 56.44%

Physical Description: Needles (Me₂CO/CHCl₃)

Other Data: Becomes coloured at 150° and dec. at higher temps. without melting

>>Derivative: Tetranitrile

see 1,1,2,2-Ethanetetracarbonitrile, [BYY54-D](#)